

A New Species of *Apatolestes* from California

(Diptera: Tabanidae)

WOODROW W. MIDDLEKAUFF

Department of Entomology, University of California, Berkeley

AND

ROBERT S. LANE

Vector and Waste Management Section, California State Department of Health, Berkeley.

The pangoniine genus *Apatolestes* consists of a primitive group of species confined to the western United States, northern Mexico, and southwestern Canada. It is comprised of 10 previously described species and 1 subspecies, 3 of which are found only in California. The addition of *rugosus* n. sp. to this list brings the total number of species to 11, with 4 of them confined to the state.

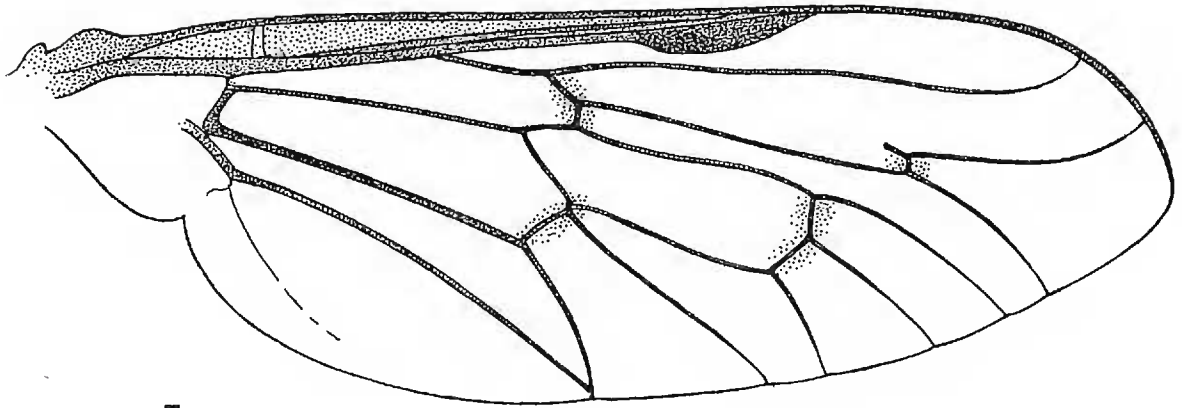
The new species was discovered while the authors were studying the tabanid fauna of California, and is described here to make the name available.

This species is closely related to *A. willistoni* Brennan to which it will run in existing keys due to the infuscation present in the costal cells at the bifurcation of veins R_4 - R_5 and along the apical cross veins (Fig. 1). *A. rugosus* can be distinguished from *willistoni* by its more robust body and average larger size (12-13 mm); wrinkled (rugose) subcallus; extensive brown pollinose areas lateral to the ocelli; and hairless middle of the frontoclypeus in the female (Fig. 2). *A. willistoni* is more slender and averages smaller in body length (8-9 mm); the subcallus is smooth, not rugose; the pollinosity next to the eyes on the vertex is gray and the frontoclypeus is hairy. The male has the area of the small eye facets blending into that of the large facets, whereas these areas are sharply demarcated in *willistoni*.

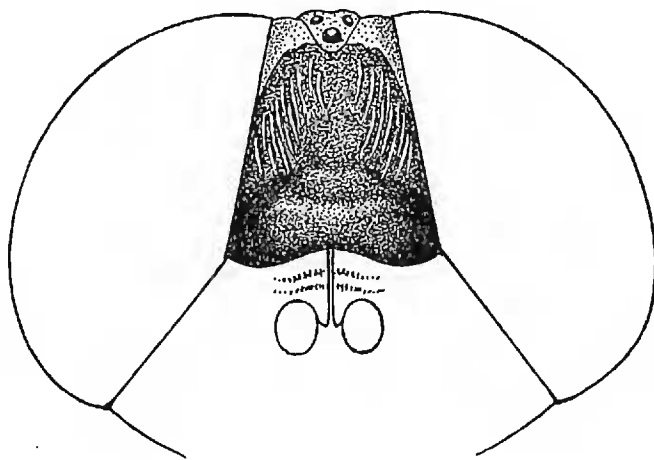
***Apatolestes rugosus*, n. sp.**

(Figs. 1-2)

Female holotype.—Body length 12 mm. Ratio of basal width of frons to its height and width at vertex is 1:2:1.5; vertex between ocelli and eyes with rusty-brown pollinosity, the pollinose area acutely angled below median ocellus and adjacent to eye; remainder of frons including basal callus shiny, jet black, with a patch of long stramineous hairs above basal callus and adjacent to each eye; basal callus markedly swollen, laterally attaining each eye; subcallus with gray to tan pollinosity and a characteristic pair of wrinkles (Fig. 2); frontoclypeus sparsely



1



2

FIGS. 1-2. *Apatolestes rugosus*, female. Fig. 1. Wing, showing venation and areas of infuscation. Fig. 2. Frontal view of head showing rugose subcallus.

covered with long, straw-colored hairs; genae with numerous black hairs especially near eye margins; apical palpal segment with a conspicuous dorsal groove, covered with a few pale, but mostly black hairs; scape and pedicel with gray pollinosity; the flagellum black.

Thorax and scutellum with gray pollinosity, the former with a submedian and a broad black line laterally on each side and both with numerous, short, appressed, pale golden-yellow hairs; pleurae with numerous, long, white and black intermixed hairs. Femora and dorsal surface of tarsi black; tibiae and plantar surface of tarsi dark brown.

Abdominal tergites black, each with a transverse band of gray pollinosity expanding medially on tergites II and III to form small, indistinct triangles. Wing hyaline except for infuscated costal cell, cross veins, and a spot at bifurcation (Fig. 1).

Male allotype.—Body length, 10.5 mm. Except for sexual differences similar to female holotype. The area of small eye facets brown to black blending imperceptibly into the brown area of large facets above; a few short black hairs at tip of palpi.

Holotype female, University of California Field Station, Hopland, Mendocino Co., California, June 2, 1973, John R. Anderson, collector.

Allotype male, taken in copulo with the holotype female.

Paratypes.—47 ♀ ♀ and 20 ♂ ♂, all topotypic, collected on various dates from late May to late July, 1966, 1969, 1972, and 1973. In addition the following specimens were seen but not placed in the paratype series: 1 ♀, Red Bluff, Tehama Co., VI-12-51 (California Department of Food and Agriculture) and 1 ♀, 20 mi. n.w. Macdoel, Siskiyou Co., VII-14-67, L. L. Dunning, collector (U. C. Davis).

The holotype and allotype plus some additional paratypes will be deposited in the entomological collection, California Academy of Sciences, San Francisco. Remaining paratypes will be placed in the U.S. National Museum, Canadian National Collection, Cornell University, and the California Insect Survey.

SCIENTIFIC NOTE

***Liogorytes joergenseni* (Brèthes), a cicada killer in Argentina (Sphecidae, Nyssoninae).**—The only two wasp genera previously known to provision cicadas are the well-known and widespread *Sphecius*, and the Australian *Exeirus*, both genera in the sphecid tribe Gorytini. Now a third gorytin genus, *Liogorytes*, is known to use cicadas.

A nesting colony of *L. joergenseni* (Brèthes) was discovered in a natural spring zone at La Ciénaga, Catamarca, Argentina. The first sighting of this colony was made 12 December, 1973, when Stange found a female dominated population (sex ratio 30 females to 1 male) busily engaged in provisioning nests with a species of Cicadidae (*Chonosia* sp.). This cicadid was present in tremendous numbers, apparently having emerged from nymphs that had been feeding on the dominant plant in the study zone, a species of Clump Grass (*Sporolobus*). Females were observed carrying this medium size cicadid to its ground burrows which were about one-half inch in diameter. Bohart and Stange revisited the site on 27 November, 1975, and found a male dominated population (38 males to 9 females). In contrast to the first experience, only one adult cicadid was found and the population activity was centered upon males searching for females. Based on the material collected to date (78 specimens) the females are rather constant in size (about 22 mm long), whereas the males are highly variable (12 mm to 22 mm). When the site was first visited in 1975, adults of *L. joergenseni* were quite abundant (about 10 a.m.) but within an hour, after a marked increase in temperature, the adults ceased flying. On a return to the site by Bohart on 16 December, 1975 no adults of either sex were seen and nesting was presumably complete.—R. M. BOHART, *Department of Entomology, University of California, Davis, 95616*, and LIONEL STANGE, *Instituto Miguel Lillo, Tucumán, Argentina*.